



BILLING CODE 4510-43-P

DEPARTMENT OF LABOR

Mine Safety and Health Administration

30 CFR Part 75

RIN 1219-AB75

Examinations of Work Areas in Underground Coal Mines for Violations of Mandatory Health or Safety Standards

AGENCY: Mine Safety and Health Administration, Labor.

ACTION: Final rule.

SUMMARY: The Mine Safety and Health Administration (MSHA) is revising its requirements for preshift, supplemental, on-shift, and weekly examinations of underground coal mines to require operators to identify violations of health or safety standards related to ventilation, methane, roof control, combustible materials, rock dust, other safeguards, and guarding, as listed in the final rule. Violations of these standards create unsafe conditions for underground coal miners. The final rule also requires that the mine operator record and correct violations of the nine safety and health standards found during these examinations. It also requires that the operator review with mine examiners on a quarterly basis all citations and orders issued in areas where preshift, supplemental, on-shift, and weekly examinations are required. The final

rule will increase the identification and correction of unsafe conditions in mines earlier, and improve protection for miners in underground coal mines.

DATES: Effective date: [INSERT DATE 120 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

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I. Executive Summary

A. Purpose of the Regulatory Action

Effective preshift, supplemental, on-shift, and weekly examinations are the first line of defense to protect miners working in underground coal mines. After analyzing the Agency's accident reports and enforcement data for underground coal mines covering a 5-year period, MSHA determined that the same types of violations of health or safety standards are found by MSHA inspectors in underground coal mines every year and that these violations present some of the most unsafe conditions for coal miners. These repeated violations expose miners to unnecessary safety and health risks that should be found and corrected

by mine operators. The final rule will increase the identification and correction of unsafe conditions in mines earlier, removing many of the conditions that could lead to danger, and improve protection for miners in underground coal mines.

Section 303 of the Federal Mine Safety and Health Act of 1977 (Mine Act), which retained without change the language of the Federal Coal Mine Health and Safety Act of 1969, requires preshift [section 303(d)(1)], on-shift [section 303(e)], and weekly [section 303(f)] mine examinations for hazardous conditions; and preshift and weekly examinations for compliance with health or safety standards. The final rule is consistent with the provisions in the Mine Act that require examinations for compliance with health or safety standards in addition to hazardous conditions.

B. Summary of Major Provisions

The final rule revises MSHA's requirements for preshift, supplemental, on-shift, and weekly examinations of underground coal mines to require operators to identify and correct violations of nine health or safety standards related to ventilation, methane, roof control, combustible materials, rock dust, other safeguards, and guarding, in addition to hazardous conditions. These nine standards are

consistent with MSHA's "Rules to Live By" initiatives started in 2010 to prevent fatalities in mining.

Violations of these nine standards represent the conditions or practices that, if uncorrected, present the greatest unsafe conditions and the most serious risks to miners. It is important to remind operators that if examiners observe other violations, they remain obligated, as they are under the existing standards, to address these violations. The final rule requires mine operators to record the actions taken to correct these violations.

The final rule, like the proposal, adds a new provision that requires the operator to review with mine examiners, on a quarterly basis, all citations and orders issued in areas where preshift, supplemental, on-shift, and weekly examinations are required. The questions and discussions that arise during the quarterly reviews will educate and enhance the skills and knowledge of the operators and the examiners to identify hazards and violations, resulting in continual improvement in the quality of mine examinations, the safety and health conditions in the mines, and protection for miners.

C. Costs and Benefits

MSHA estimates that the rulemaking will result in approximately \$17.0 million in yearly costs for the

underground coal mining industry. MSHA estimates that the monetized benefit to underground coal mine operators, in reduced fatalities and injuries, is approximately \$21.3 million yearly, resulting in a net benefit of approximately \$4.3 million yearly. MSHA estimates that, on average, the final rule will prevent approximately 2.4 fatalities and 6.4 lost-time injuries per year.

II. Introduction

A. Statutory and Regulatory History

Sections 303(d)(1), (e), and (f) of the Federal Mine Safety and Health Act of 1977 (Mine Act), which retained without change the language of the Federal Coal Mine Health and Safety Act of 1969 (Coal Act), set requirements for preshift, on-shift, and weekly examinations.

Section 303(d)(1) of the Mine Act requires that certified examiners conduct preshift examinations within 3 hours prior to the next shift. The preshift examinations are for specified hazards and for such other hazards and violations of the health or safety standards, as an authorized representative of the Secretary may from time to time require (30 U.S.C. 863(d)(1)). The purpose of the preshift examination is to identify and correct hazards and unsafe conditions, such as methane accumulations, water

accumulations, and adverse roof conditions, before other miners travel underground to work their shift.

Section 303(e) of the Mine Act requires on-shift examinations for hazardous conditions (30 U.S.C. 863(e)). The purpose of the on-shift examination is to identify and correct hazards that develop during the shift.

Section 303(f) of the Mine Act requires weekly examinations for hazardous conditions and for compliance with health or safety standards (30 U.S.C. 863(f)). The purpose of the weekly examination is to identify and correct hazards and violations of standards that develop in remote and less frequently traveled areas of the mine, such as worked-out areas and bleeder entries that carry away methane. Methane accumulations in these areas could result in an explosion if they are not discovered and removed from the mine.

On November 20, 1970, MSHA issued a final rule for preshift, on-shift, and weekly examinations for hazardous conditions (35 FR 17890). The final rule restated the statutory provisions of the Coal Act, which were retained in the Mine Act.

On January 27, 1988 (53 FR 2382), MSHA issued a proposed rule to revise the requirements for preshift, on-shift, and weekly examinations and add a new requirement

for supplemental examinations. After evaluating the comments, MSHA issued a final rule on May 15, 1992 (57 FR 20868). Neither the proposed rule nor the final rule included a requirement that mine examiners check for violations of health or safety standards.

On May 19, 1994, MSHA proposed revisions to the preshift examination standard (59 FR 26356) to require that examiners look for violations of health or safety standards that could result in a hazardous condition. The proposal had the potential to enhance safety by placing the mine operator in a proactive rather than a reactive role in finding and fixing conditions before hazards develop. After evaluating the comments, MSHA issued a final rule on March 11, 1996 (61 FR 97640). In response to comments, the final rule did not include the proposed requirement that a preshift examination include examining for violations of health or safety standards. In the preamble to the 1996 final rule, MSHA stated its intent that examiners focus their attention on critical areas and the identification of conditions that pose a hazard to miners.

After reviewing accident investigation reports from nonfatal accidents from 2005 through 2009, MSHA identified a direct link between violations of nine standards and accidents that resulted in injuries and fatalities. During

that 5-year period, MSHA found that the accident reports for 12 fatalities and 32 nonfatal injuries listed violations of one or more of the nine standards addressed by the final rule as contributing factors. The data shows that when left uncorrected these violations can create hazardous conditions and lead to accidents resulting in injuries and fatalities. Based on the data and the Agency's experience, MSHA determined that only focusing on hazardous conditions would not provide effective safety for miners. MSHA concluded that because the violations of the nine standards in the final rule repeatedly contributed to accidents, fatalities and injuries, the final rule would provide the greatest protection for underground coal miners.

On December 27, 2010 (75 FR 81165), MSHA issued a proposed rule that would have required underground coal mine operators to identify violations of health or safety standards during preshift, supplemental, on-shift, and weekly examinations. The proposal would also have required that mine operators record and correct violations and review with mine examiners, on a quarterly basis, all citations and orders issued in areas where these examinations are conducted. The Agency received comments on the proposed rule and held five public hearings in June

and July 2011. These hearings were held in Denver, Colorado; Charleston, West Virginia; Birmingham, Alabama; Arlington, Virginia; and Hazard, Kentucky. The comment period closed on August 1, 2011.

B. Background Information

Underground coal mines are dynamic work environments where the working conditions change rapidly and without warning. Diligent compliance with safety and health standards and safety conscious work practices provide an effective measure of protection against unsafe and hazardous conditions that lead to accidents and emergencies in underground coal mines.

Effective examinations are the first line of defense to protect miners working in underground coal mines. At the beginning of the shift, miners in an underground coal mine are particularly vulnerable to hazards and dangerous conditions in the workplace that developed during the prior shift; the preshift and supplemental examinations are intended to protect miners from such hazards and dangerous conditions. This final rule revises MSHA's existing standards to require that operators examine for violations of health or safety standards in addition to hazardous conditions; it provides more effective underground coal

mine examinations and increased safety and health protection for miners.

In developing the final rule, MSHA reviewed accident investigation reports, the Agency's enforcement data for underground coal mines covering a 5-year period, and the public comments received in response to the proposal. After analyzing the accident reports and enforcement data, MSHA determined that the same types of violations of health or safety standards are found by MSHA inspectors in underground coal mines every year. These repeated violations expose miners to unnecessary safety and health risks that should be found and corrected by mine operators. MSHA's review found that the most frequently cited standards accounted for about 50 percent of the total violations at underground coal mines in 2009 and that these violations present some of the most unsafe conditions in underground coal mines.

These violations include the following safety and health conditions: accumulations of combustible materials; violations of ventilation and roof control plans; insufficient incombustible content of rock dust; improperly constructed airlock doors; or improperly maintained ventilation controls. Absent other conditions, such as a misaligned conveyor belt, an operator might not consider

these to be hazardous conditions. However, conditions in underground coal mines change rapidly – a roof that appears adequately supported can quickly deteriorate and fall; stoppings can crush out and short-circuit air currents; conveyor belts can become misaligned or belt roller bearings can fail, resulting in an ignition source; and methane can accumulate in areas where it may not have been detected.

The final rule identifies violations of nine standards, which if left uncorrected, pose the greatest risk to miners' safety. Because the existence of these violations poses the greatest risk to miners, the mine operator is required to identify and correct them. Violations of the nine standards in the final rule can, individually or together, quickly lead to hazardous conditions, and ultimately to disastrous consequences. They represent the types of violations identified in MSHA's "Rules to Live By" initiatives, as well as some of the contributory violations in the Accident Investigation Report of the Upper Big Branch Mine disaster.

An accumulation of fine coal dust (fuel) in an underground air course, for example, contains sufficient oxygen for ignition and is lacking only a heat source to present an immediate fire hazard. In this situation,

operators must remove the fuel source (fine coal dust) from the mine because an electrical arc or improperly maintained conveyor belt roller could provide the heat source and start a fire. Compliance with the health or safety standards (e.g., for accumulations of combustible materials and maintenance of belt conveyors), in this instance, would provide two measures of safety - removing the fuel and heat source that could cause a fire.

III. General Discussion of Final Rule

Consistent with the Mine Act, this final rule revises MSHA's examination standards for underground coal mines to include a requirement that examiners conducting preshift, supplemental, on-shift, and weekly examinations identify not only hazardous conditions, but also violations of nine health or safety standards. In response to comments, MSHA has included those standards that represent nine of the most frequently cited violations by MSHA inspectors and are consistent with MSHA's Rules to Live By initiatives. These standards address unsafe conditions and hazards in underground coal mines that present dangers to miners. The final rule requires that mine examiners identify, record, and correct hazards and violations of these nine standards. It is important to remind operators that if examiners observe other violations, they remain obligated, as they

are under the existing standards, to address these violations.

Many commenters opposed the proposed rule expressing concern that examinations for violations of all safety and health standards would diminish safety by distracting mine examiners from looking for the more serious hazardous conditions. These commenters noted that in previous rulemakings, after considering this same issue, MSHA decided against including this provision in the final rules. In support of their position, several commenters pointed to a statement in the preamble of MSHA's 1992 final rule in which the Agency stated that—

... the final rule does not include a provision authorizing expansion of the preshift examination to include an examination for violations of mandatory standards. Most 'hazards' are violations of mandatory standards. (57 FR 20894, May 15, 1992)

Commenters supporting the proposed requirement to examine for all violations stated that the proposal addresses a deficiency in the existing standard. They noted that, under the existing standard, a mine examiner might not record and correct an obvious violation of a health or safety standard because the examiner does not believe the violation to be a hazardous condition. MSHA inspection experience indicates that, if the violation is

not recorded, operators often fail to correct the violations until they are cited by an MSHA inspector.

In response to commenters who stated that the proposed rule would distract examiners from more serious conditions and those who stated that examiners would overlook obvious violations, the final rule specifies the health or safety standards that must be included in preshift, supplemental, on-shift, and weekly examinations. These standards represent conditions or practices that, if uncorrected, could present the most unsafe conditions and serious risks to miners in underground coal mines. MSHA has identified violations of these standards as contributing to numerous fatalities occurring between 2000 and 2009, and most were emphasized in MSHA's Rules to Live By initiative started in 2010 to prevent fatalities in mining.

Under the final rule, examiners must examine for hazardous conditions and violations of the following nine standards:

§§ 75.202(a) and 75.220(a)(1) - roof support and the mine roof control plan;

§§ 75.333(h) and 75.370(a)(1) - maintenance of ventilation controls and the mine ventilation plan;

§§ 75.400 and 75.403 - accumulations of combustible materials and application of rock dust;

§ 75.1403 - other safeguards, limited to maintenance of travelways along belt conveyors, off track haulage roadways, track haulage, track switches, and other components for haulage;

§ 75.1722(a) - guarding moving machine parts; and

§ 75.1731(a) - maintenance of belt conveyor components.

These standards represent the conditions or practices that, if uncorrected, would present the greatest unsafe conditions and the most serious risks to miners in underground coal mines. In addition, based on MSHA data and experience, these also represent violations that are frequently found by MSHA inspectors year after year.

Violations of standards included in the final rule are the types of violations that well-trained and qualified examiners can observe while conducting effective examinations. Under the existing standards, violations of these standards may have gone undetected and uncorrected where operators did not believe that they were hazardous conditions. The final rule will provide for a more effective approach to safety and health and add a necessary margin of safety in a particularly dangerous work environment. It will also result in more effective and consistent examinations which assure that hazardous

conditions and violations of the standards in the final rule will be timely identified and corrected. The final rule will continue to reflect MSHA's intent under the existing standards that operators prioritize and correct violations based on the seriousness of the hazard.

The final rule requires operators to be more proactive in their approach to mine health and safety and to find and fix violations of health or safety standards in the final rule before they become hazardous. As a result, conditions that might have been identified only by MSHA inspectors will now be found and corrected by the operator, and a culture of safety will be fostered at the mine. The final rule will also promote this culture of safety by requiring operators to review with mine examiners, on a quarterly basis, citations and orders issued in areas where preshift, supplemental, on-shift, and weekly examinations are required. The final rule will enhance miners' safety because violations of health or safety standards that present the greatest risks will be identified and corrected, removing many of the conditions that could lead to danger in underground coal mines.

IV. Section-by-Section Analysis

A. § 75.360 Preshift Examination at Fixed Intervals

The final rule revises the existing preshift examination standard to require operators to check for hazardous conditions and violations of nine health or safety standards in the rule. These standards represent areas which present unsafe conditions for miners where MSHA continues to find violations of safety and health standards. Consistent with the Mine Act, the final rule also provides that the District Manager may require examinations in other areas of the mine for hazardous conditions and for violations of safety or health standards, based on, for example, the violation history of the mine. Like the proposal, the final rule also requires operators to record hazards and all violations, along with the actions taken to correct them.

Some commenters were concerned that the proposed rule did not specify which standards in part 75 the mine examiners would be expected to identify and correct. They noted that while MSHA indicated that the proposed rule was intended to assure that violations of MSHA's most frequently cited standards were identified, the proposed rule language did not list those standards.

Several commenters suggested that MSHA include in the final rule language the violations of specific standards that examiners are expected to identify. Other commenters suggested that, if the proposal went forward, MSHA could limit the violations that examiners would look for to those covered by the Rules to Live By categories or conditions that are significant and substantial (S&S) violations. The nine standards specified in the rule are consistent with the standards identified in MSHA's Rules to Live By initiatives and derived from the ten most frequently cited standards discussed in the proposed rule and further analyzed in the preliminary regulatory economic analysis.

A number of commenters stated that there is not enough time allotted for preshift examinations to examine for all violations of the MSHA standards in 30 CFR part 75. Some commenters were concerned that, without allotting additional time for preshift examinations or limiting the list of standards they would be required to address, mine operators would be required to hire additional examiners. Some commenters indicated that mine examiners would need much more training to identify violations of all MSHA standards in part 75.

Commenters who supported the proposal stated that the rule addresses a deficiency in the existing standard

because a mine examiner might not record and correct an obvious violation of a health or safety standard as the examiner might not believe the violation to be a hazardous condition. Other commenters were concerned that the proposal could place mine examiners in a difficult position. They noted that examiners could be disciplined or fired for missing some violations during their examinations even while they may be disciplined for finding many minor technical violations.

Commenters also stated that based on the proposed rule, a mine could get cited twice for the same violation - one citation for the violation of a health or safety standard and another citation for an inadequate examination. Under the existing regulation, operators must conduct required examinations and take required actions to comply with specific standards. The final rule does not change this existing requirement and enforcement practice.

Generally, at the beginning of an inspection, an inspector will review an operator's examination records. As is the case under the existing standard, recording a violation does not automatically result in a citation.

In the final rule, MSHA responds to commenters' concerns by including the requirement that operators conducting preshift examinations examine for violations of

nine standards. Operators are, therefore, put on notice as to the specific violations that examiners must look for in their examinations. In this way, operators can better focus on conditions and practices that represent higher risks to miners in the time allotted for the preshift examination. Consistent with the Mine Act, under the final rule, operators remain responsible for all violations; responsible operators should have policies in place to find and fix all violations and record them.

As stated in the proposed rule, the final rule will require that operators conduct more thorough examinations of underground coal mines. By requiring examinations for violations of health or safety standards in the final rule, miners will be better protected because mine operators will correct unsafe conditions before they result in hazardous conditions. Mine operators must identify hazards and violations of the nine standards, and record these and violations of other health or safety standards found during their examination in the examination records; the operator must assure that they are corrected. Under the final rule, however, operators are not required to have examiners perform additional tests, take additional measurements, or open and examine equipment or boxes.

The mine operator is required by § 75.220(a)(1) to develop and follow a roof control plan and by § 75.370(a)(1) to develop and follow a mine ventilation plan approved by the District Manager. These plans are mine-specific and can sometimes be comprehensive and complex. MSHA expects that the operator will assure that the examiner should have broad knowledge of these plans.

Unlike the proposal, the final rule does not require operators to have examiners to look for violations of § 75.1725(a) related to mobile and stationary machinery and equipment (one of the most frequently cited standards). Many commenters opposed inclusion of this standard stating that it would require examiners to check permissibility, brakes, and electrical components. They stated that such tasks are beyond an examiner's knowledge and skills and that such tasks would consume most of the time allotted to conduct preshift examinations. In addition, they pointed out that other standards require the examination of mobile and stationary machinery and equipment and that adding a similar requirement to the preshift examination would be duplicative and unnecessary. Although § 75.1725(a) was part of the Rules to Live By I, available on MSHA's website at <http://www.msha.gov/focuson/RulestoLiveBy/RulestoLiveByI.aspx>, the types of accidents in which the standard was cited

would likely not have required a preshift, supplemental, on-shift, or weekly examination of the equipment involved.

In response to comments, the final rule does not include § 75.1725(a). MSHA's existing standards address the examination and maintenance of mobile and stationary machinery and equipment; this will provide necessary protection for miners.

Commenters who supported requiring operators to identify all violations stated that this would relieve examiners of the burden of determining whether a health or safety violation is hazardous at the time it is discovered, so that miners will be better protected. They added that the proposal would allow operators to learn about such conditions at an earlier time and abate the violations before they ever become hazardous. They stated that a requirement to identify and record all violations of health and safety standards instead of only those violations believed to be hazardous would simplify the examiner's task and make it more straightforward.

In response to these comments, the final rule requires operators to look for violations of nine safety or health standards which MSHA believes present unsafe conditions and risks to miners. Operators who examine for hazardous conditions and violations of the health or safety standards

in the final rule will provide a safer workplace for their miners.

Some commenters were concerned that mine examiners would not be trained to recognize violations of all MSHA standards. Commenters stated that mine examiners are trained by state agencies, not MSHA, and none of the states require examinations to identify every condition that violates a standard. They pointed out that mine examiners are trained to recognize certain hazards. They were concerned that the proposal would require certified examiners to act as MSHA inspectors despite the lack of training on identifying violations of all health or safety standards.

As stated at the public hearings, operators are responsible under the Mine Act for finding and fixing violations of safety and health standards. Historically, MSHA accepted State certifications for mine examiners. The final rule addresses hazardous conditions required under the existing rule and violations of health or safety standards. Since violations of the nine standards generally relate to hazardous conditions covered by the existing rule, MSHA believes that the final rule will have only a minimal effect on states.

In response to questions from the MSHA Panel at the public hearings, some commenters provided information as to how they examine for violations of safety and health standards. The examinations in this final rule should represent only part of an operator's program for finding and fixing violations. Since this final rule requires examinations for hazards and violations of nine safety or health standards which present unsafe conditions and risks to miners. MSHA does not believe that there is a need for any additional requirement for training mine examiners. In addition, MSHA believes that the new requirement in § 75.363(e) (that the operator review with examiners on a quarterly basis all citations and orders issued in areas where preshift, supplemental, on-shift, and weekly examinations are required discussed elsewhere in the preamble), when conducted properly, provides examiners with necessary instruction to identify hazards and violations.

The final rule makes conforming changes to the existing requirement in § 75.360(a)(2) that allows pumpers, who are certified persons, to perform the preshift examination for themselves. Under the final rule, examinations conducted by pumpers must include hazardous conditions and violations of the nine standards. Like the existing rule, pumpers often work alone in remote areas of

the mine. MSHA expects that the pumper would examine for hazardous conditions and violations of the nine standards. The pumper must record hazardous conditions and violations of the nine health or safety standards found during the preshift examination.

Some commenters addressed proposed § 75.360(e) that would permit the District Manager to require examinations in other areas of the mine for other hazards or violations of safety or health standards. Most of those commenters stated that this would add to the existing burden on both the District Managers and mine operators. Commenters were concerned that this would give the District Manager broad powers to dictate additional areas, other hazards, or violations to be examined by certified persons. Under the existing standard, the District Manager may require the certified person to examine other areas of the mine or examine for other hazards during the preshift examination.

It was the intent of Congress in the Mine Act and MSHA in the existing standard that the District Managers have the discretion to require additional examinations as necessary. MSHA's experience reveals that District Managers rarely exercise this discretion. Therefore, MSHA does not believe that this provision will result in additional costs. Consistent with the Mine Act, like the

proposal, the final rule revises this provision to allow the District Manager to require additional examinations based on, among others, the violation history of the mine.

For example, if a mine is experiencing safety issues and violations due to obstructed walkways on the off side of the belt conveyor, it would be appropriate for the District Manager to require that the mine operator focus on this area. Most operators do not routinely examine the off side of the belt conveyor, but there are occasions when miners are required to work or travel on the off side, such as to align the belt, replace a roller, or remove accumulations. As another example, the District Manager may require a mine operator to verify that battery charging stations are adequately ventilated if a mine operator has received violations of § 75.340(a)(1)(i) for failure to ventilate battery charging stations with intake air that is directly coursed into a return air course or to the surface or with air that is not used to ventilate working places. MSHA believes that this provision is consistent with the Mine Act and is necessary to protect the safety and health of miners.

A number of commenters were concerned about the recordkeeping requirements in proposed §§ 75.360(g), 75.363(a) and (b), and 75.364(h). Although commenters

recognized the importance of recordkeeping, some were concerned that the proposal would increase recordkeeping dramatically.

MSHA understands that the final rule will increase recordkeeping requirements. The final rule requires that the operator focus on nine standards which present the greatest risks to miners in underground coal mines.

B. § 75.361 Supplemental Examination

The final rule revises existing § 75.361(a) to require that the supplemental examination identify hazards and violations of nine standards to provide necessary protection for miners. As with the existing rule, operators cannot ignore violations of other standards seen during the examination. As discussed above, in response to comments, MSHA is adding language to make clear which violations operators are required to identify. The same language referencing these standards is also being added to the final requirements for preshift, on-shift, and weekly examinations.

C. § 75.362 On-shift Examination

The final rule revises existing § 75.362(a)(1) and (b) to require that the mine operators identify hazards and violations of the nine standards during any shift when anyone is assigned to work on the section and where

mechanized mining equipment is being installed or removed. Like the existing rule, operators cannot ignore violations of other standards seen during the examination. As discussed above, in response to comments, the final rule clarifies that operators are required to look for violations of nine standards, in addition to hazards, while also recording and correcting violations of other standards when they see them.

D. § 75.363 Hazardous Conditions and Violations of Mandatory Health or Safety Standards; Posting, Correcting, and Recording

The final rule revises existing § 75.363 to require the mine operator to post hazardous conditions, correct, and record hazardous conditions and violations of all health or safety standards found during preshift, supplemental, on-shift, and weekly examinations and record the corrective actions taken. The final rule also includes a new requirement in § 75.363(e) that the operator review with examiners, on a quarterly basis, all citations and orders issued in areas where preshift, supplemental, on-shift, and weekly examinations are required. MSHA expects that, during the review, the operator and examiners would discuss the violations found since the previous review.

Some commenters were concerned about the recordkeeping requirements in proposed §§ 75.363(a) and (b) and 75.364(h); those comments were addressed above under the discussion of recordkeeping in § 75.360(g).

Commenters suggested that MSHA clarify what the Agency meant when it stated in the preamble that operators would have to correct violations within a reasonable time. They indicated that without such clarification, there could be a range of interpretations about what would be reasonable and whether this would be determined by the MSHA inspector or the company.

In the final rule, MSHA has not included a time frame for correcting violations but is relying on the Agency's historical practice related to mine operators' correction of violations. Consistent with its position in the preamble to the proposed rule, MSHA anticipates that operators will correct violations within a reasonable time period based on the conditions and circumstances at the mine. The mine operator is in the best position to determine the resources necessary to correct a violation including the time frame. If resources and personnel are available to correct a violation, the violation should be corrected at that time.

For example, a mine examiner is conducting an examination of a belt conveyor entry and identifies a broken roller as a violation. It is not generating any heat or sparks and, therefore, does not pose a hazard. To prevent the broken roller from becoming a potential fire hazard, the mine examiner removes the roller assembly. The mine examiner completes the examination of the belt conveyor entry and returns to the surface. The condition "damaged roller - needs replaced" is entered into the preshift examination book. The mine operator must order a new roller assembly, which will take two days to obtain and install. The mine operator places an order for the roller assembly and has the purchase order available for review by the inspector. The roller is ordered and replaced when it is received. In this particular example, the mine operator would not receive a citation.

Some commenters opposed proposed § 75.363(e), the requirement for quarterly reviews of citations and orders. They stated that quarterly meetings to review citations and orders with mine examiners are not needed because all citations are required to be posted in a conspicuous area. Other commenters supported the proposed requirement. They agreed that it makes sense to make mine examiners aware of citations, orders, and violations identified by inspectors

in areas where examinations are required so the examiners can improve identification of recurring violations.

Therefore, if citations and orders are being issued for violations other than the nine standards identified in the rule, the mine examiner will be better able to find and correct those violations as well.

MSHA believes that the final rule will result in continual improvement in the quality of mine examinations in underground coal mines and a greater level of protection for underground coal miners. The questions and discussions that arise during the quarterly reviews will educate operators and examiners and enhance their skills and knowledge.

E. § 75.364 Weekly Examination

The final rule revises the weekly examination standard to require operators to examine for hazards and violations of the nine standards to provide greater protection for miners. The operator must look for violations of the nine standards listed in the final rule, but also record and correct violations of other health or safety standards when they see them.

The weekly examination involving § 75.1403 will require operators to address maintenance of track haulage, off track haulage roadways, track switches, and other

components for haulage. Since weekly examinations are required in worked out areas, bleeder entries, and air courses where equipment and conveyor belts are not typically installed, mine examiners are unlikely to encounter conditions related to § 75.1403 - other safeguards, maintenance of travelways along belt conveyors; § 75.1722(a) - guarding moving machine parts; and § 75.1731(a) - maintenance of belt conveyor components.

The final rule includes conforming changes to require the identification, recording, and correcting of hazardous conditions and violations of the nine health or safety standards found during the weekly examinations.

V. Executive Orders 12866 and 13563: Regulatory Planning and Review

MSHA has not prepared a separate regulatory economic analysis for this rulemaking. Rather, the analysis is presented below.

A. Population at Risk

The final rule applies to all underground coal mines in the United States. The number of underground coal mines that MSHA used to estimate the cost of the final rule is the quarterly average of underground coal mines that reported employment underground at any time during 2010 regardless of production. Underground mines that only

reported employment at the surface were not included since the examinations covered by this final rule are only performed when miners are working underground. The number of employees reflects the average underground employment at these mines for the year.

There are approximately 549 underground coal mines employing 51,706 miners, excluding office workers. Table 1 presents the number of underground coal mines and employment by mine size.

Table 1: Underground Coal Mines and Miners, 12-Month Average as of January 2011, By Mine Size

Mine Size	No. of Underground Coal Mines	Total Employment at Underground Coal Mines, Excluding Office Workers
1-19 Employees	172	1,676
20-500 Employees	366	33,036
501+ Employees	11	6,748
Contractors	--	10,246
Total	549	51,706

Source: MSHA MSIS Data (December 16, 2011)

Underground coal mines produced an estimated 337 million short tons of coal in 2010. The average price of coal in underground mines in 2010 was \$60.73 per short ton (Department of Energy (DOE), Energy Information Administration (EIA), *Annual Coal Report 2010*, November 2011, Table 28). Table 2 presents coal production and estimated revenues for 2010.

Table 2: Coal Production in Short Tons and Coal Revenues
in 2010 for Underground Coal Mines

Mine Size	Coal Production (Short tons)	Coal Revenue (Dollars)
1-19 Employees	3,687,255	\$223,890,124
20-500 Employees	247,441,842	\$15,024,668,646
501+ Employees	86,219,427	\$5,235,243,607
Total	337,348,524	\$20,483,802,377

B. Benefits

One of MSHA's primary goals with this rulemaking is to reduce violations of health or safety standards that occur in underground coal mines year after year. These violations ultimately lead to accidents, injuries, and illnesses. This section presents a summary of the potential benefits resulting from final rule changes to requirements for preshift, supplemental, on-shift, and weekly examinations in underground coal mines.

For informational purposes, MSHA provides estimates of monetized potential benefits of the final rule. Under the Mine Act, MSHA is not required to use monetized benefits or estimated net benefits as the basis for its decisions on standards designed to protect the health and safety of miners.

Based on the estimated prevention of 2.4 fatalities and 6.4 lost-time injuries per year, MSHA estimates that the final rule could result in monetized benefits of up to

\$21.3 million per year ($2.4 \times \$8.7 \text{ million} + 6.4 \times \$62,000$). An explanation of the methodology MSHA relied upon to calculate the monetized benefits is presented towards the end of the benefits section.

To derive the estimated number of preventable injuries and fatalities used above, MSHA reviewed accident investigation reports from 2005 through 2009 where an inadequate examination of the underground work area contributed to the accident. MSHA further looked to see how many of those accidents involved, as a contributing factor, violations of nine standards cited by MSHA inspectors year after year.

Over the 5-year review period, there were 91 fatalities in underground coal mines. Of this total, the investigation reports for 15 of the fatalities (11 reports) specifically listed violations of the preshift, supplemental, on-shift, or weekly examinations standards as factors contributing to the accident. Although these fatalities involved conditions exposing risks to miners and violations of existing standards, the examiners did not perceive them as hazardous conditions. MSHA determined that only focusing on hazardous conditions would not provide effective safety for miners. Under the final rule,

mine operators would be required to identify and correct these violations in addition to hazardous conditions.

Based on MSHA's review and the findings explained below, the final rule requires the examiner to identify and record, and the operator to correct, violations of the nine standards listed in the final rule that are found during preshift, supplemental, on-shift, or weekly examinations.

After analysis of the 15 fatalities, MSHA determined that nine of them involved violations of one or more of the health or safety standards listed in the final rule. MSHA concluded that, if these violations had been identified and corrected as required by the final rule, these nine fatalities, or approximately two fatalities per year (9 fatalities/5 years) could have been prevented.

MSHA also examined the fatal investigation reports that did not list violations of the preshift, supplemental, on-shift, or weekly examinations standards as contributing to the accident to determine if a violation of any of the nine standards in the final rule was listed as a contributing cause of the accident. Based on its review of these reports, MSHA determined that three additional fatalities could have been prevented by identifying violations of one or more of the nine standards and taking necessary corrective actions. Based on the frequency of

the required examinations, MSHA believes that the examiner could have identified the violations during either the preshift or on-shift examination, triggering corrective action. Thus, MSHA estimates that the final rule could have prevented a total of up to 12 fatalities or 2.4 fatalities per year.

MSHA estimates that the final rule could have prevented 13 percent of the 91 fatalities that occurred in underground coal mines during the 5-year review period (12/91 fatalities). The fatal investigation reports for all 12 fatalities are included in the rulemaking docket at www.regulations.gov.

In addition to reducing the number of fatalities, the final rule also could reduce the number of injuries. For the 5-year review period, 2005 through 2009, MSHA reviewed the descriptions of 75 accidents involving 90 nonfatal injuries where the citation or order listed an inadequate examination, or a violation of one or more of the nine standards in the final rule, or both, as a contributing cause of the accident. Based on this review and its experience in investigating accidents, MSHA determined that the final rule could have prevented 32 nonfatal injuries or approximately 6.4 nonfatal injuries per year (32 nonfatal injuries/5 years).

Violations of the standards listed in the final rule create unsafe conditions for underground coal miners and are directly linked to fatalities and injuries. The final rule includes a new requirement in § 75.363(e) that the operator review with examiners, on a quarterly basis, all citations and orders issued in areas where preshift, supplemental, on-shift, and weekly examinations are required. This new requirement may provide qualitative benefits that increase over time.

MSHA expects that, during the review, the operator and examiners would discuss any hazards or violations found since the previous review. MSHA believes that the questions and discussions that arise during the quarterly reviews will educate and enhance the skills and knowledge of the operators and the examiners. This provision will promote a culture of safety, resulting in a continual improvement in the quality and effectiveness of mine examinations. This will ultimately lead to an overall improvement in compliance with health and safety standards at the mine, and provide a greater level of protection for underground coal miners. Furthermore, if the examinations and corrective actions are applied effectively, individual operators may see some reductions in the time and

administrative staff associated with violations of mandatory health or safety standards.

Based on the nature of the standards in the final rule, MSHA believes that the final rule will also reduce respirable dust exposures in underground coal mines and reduce the incidence of black lung. According to a recent NIOSH report (2010), "[v]entilating air to a ... mining section, whether blowing or exhausting, is the primary means of protecting workers from overexposure to respirable dust." Mine examinations are critical to ensuring that all of the requirements in the mine ventilation plan, including the dust control plan, are in place and working. Examiners check section and outby ventilation controls and the respirable dust control parameters, which are key factors in reducing miners' exposure to respirable coal mine dust. The final rule will provide better identification and correction of violations of the ventilation standards. This, in turn, should lower miners' exposure to respirable coal mine dust, thereby lowering the incidence of black lung and other respiratory diseases. MSHA also is engaged in a separate rulemaking (RIN 1219-AB64, 75 FR 64412) that directly addresses miners' exposure to respirable coal mine dust. Due to lack of data, MSHA is unable to incrementally

quantify the reduced incidence of disease attributable to this final rule alone.

MSHA based its estimates of the monetary values for the benefits on relevant literature. To estimate the monetary value of the reduction in fatalities, MSHA performed an analysis of the value of fatalities avoided based on a willingness-to-pay approach. This approach relies on the theory of compensating wage differentials in the labor market, (*i.e.*, the wage premium paid to workers to accept the risks associated with various jobs). A number of studies have shown a correlation between higher risk on a job and higher wages, suggesting that employees demand monetary compensation in return for incurring a greater risk of injury or death.

Viscusi & Aldy (2003) conducted an analysis of studies that use a willingness-to-pay methodology to estimate the value of life-saving programs (*i.e.*, meta-analysis) and found that each fatality avoided was valued at approximately \$7 million and each lost work-day injury was approximately \$50,000 in 2000 dollars. Using the Gross Domestic Product (GDP) Deflator (U.S. Bureau of Economic Analysis, 2010), this yields an estimate of \$8.7 million for each fatality avoided and \$62,000 for each lost work-day injury avoided in 2009 dollars. This value of a

statistical life (VSL) estimate is within the range of the substantial majority of such estimates in the literature (\$1 million to \$10 million per statistical life), as discussed in OMB Circular A-4 (OMB, 2003).

Although MSHA is using the Viscusi & Aldy (2003) study as the basis for monetizing the expected benefits of the final rule, the Agency does so with several reservations, given the methodological difficulties involved in estimating the compensating wage differentials (Hintermann, Alberini, and Markandya, 2008). Furthermore, these estimates pooled across different industries may not capture the unique circumstances faced by coal miners. For example, some have suggested that VSL models be disaggregated to account for different levels of risk, as might occur in coal mining (Sunstein, 2004). In addition, coal miners may have few employment options and in some cases only one employer (near-monopsony or monopsony), which may depress wages below those in a more competitive labor market.

MSHA recognizes that monetizing the VSL is difficult and involves uncertainty and imprecision. In the future, MSHA plans to work with other agencies to refine the approach taken in this final rule.

A number of commenters disputed MSHA's analysis of the 11 fatal accident investigation reports discussed in the benefits section of the preamble to the proposed rule. One of these commenters noted that the report does not say how the investigators determined that the violations were present during the mine examinations. Another said that their review of the accident reports led them to disagree with MSHA's conclusion that the fatal injuries would have been prevented by examinations that identified violations as well as hazards.

Another commenter who reviewed the fatality reports stated that their analysis led them to conclude that the Agency's claims that nine of the 15 cited fatalities could have been prevented by examinations for violations of health or safety standards was not supportable. One commenter stated that it was not sound logic to conclude that if the violation had been identified by the examiner the accident would not have happened. He added that, in general, MSHA cites a condition or practice that caused the accident because something went wrong, but he noted that it is easy to point the finger after an accident. A number of commenters agreed that conditions often change after examinations are done.

A number of commenters addressed the potential benefits that MSHA indicated would be achieved if the proposed provisions were made final. A commenter who supported the proposed provisions said that, in their entirety, the data reveal that some accidents and injuries could have been avoided if the examiners had reported violations of standards as well as hazardous conditions. Another stated that MSHA needed to be more specific as to what it wants and what benefits MSHA thinks will be gained from the regulation. Others were uncertain about the data and experience MSHA relied on for these calculations, and suspected that the calculations were hugely understated.

As explained above, MSHA used accident reports that specifically listed violations of nine standards to derive the estimated benefits of the final rule. While the Agency feels that these accident reports best represent the types of violations that lead to injuries and fatalities, MSHA realizes that operators may find and correct violations of standards that were not considered when the Agency estimated the potential benefits and as a result the benefits above may be understated.

In this regulatory economic analysis section, MSHA provides estimated potential benefits of the final rule. MSHA includes supporting data for its estimates of benefits

and describes the methodology used to derive those benefits. MSHA also has included two links in the benefits section where interested parties can view the raw data-sets that the Agency relied on for the analysis and determination of the estimated benefits.

C. Compliance Costs

Table 3 below presents the summary of annual costs for all underground coal mine operators. MSHA's response to comments on the economic analysis in the proposed rule and a summary cost analysis for anthracite mines can be found at the end of this cost analysis section.

Table 3: Summary of Annual Costs to All Underground Coal Mine Operators

Requirement	Number of Employees			Totals
	1-19	20-500	501+	
75.360 Pre-Shift Exam	\$1,460,000	\$9,300,000	\$490,000	\$11,250,000
75.361 Supplemental Exam	\$6,400	\$81,100	\$2,400	\$89,900
75.362 On-Shift Exam	\$343,000	\$4,205,000	\$267,000	\$4,815,000
75.363(e) Review of Citations and Orders	\$31,000	\$448,000	\$69,000	\$548,000
75.364 Weekly Exam	\$79,000	\$169,000	\$5,000	\$253,000
Totals	\$1,919,400	\$14,203,100	\$833,400	\$16,955,900

The annualized benefits are \$21.3 million while the annualized costs are \$17.0 million. The estimates remain unchanged between years so changing the time period or the discount rate results in the same values over time or rate changes.

As stated previously in the industry profile section, MSHA used the quarterly average of active mines (549) that reported underground employment to estimate the costs for preshift, supplementary and weekly examinations because these examinations are only performed when miners are working underground. To estimate the cost for the on-shift examination, MSHA used the quarterly average of active mines reporting production (424) because on-shift examinations are typically performed on production shifts. MSHA used a conservative approach in estimating costs and as a result the cost figures may be overstated. This update to the number of mines resulted in an increase in total costs but not at the same rate of increase. The net effect is that the cost per mine is lower in the final rule than was presented in the proposed rule.

Because the examinations covered by this final rule are only performed when miners are working underground MSHA limited the cost estimates to mines that reported underground employment. MSHA is aware that, because of changing conditions and differing production schedules, not every mine with underground employment will perform each of the examinations nor will every mine perform them year-round; however, for the purpose of estimating average yearly costs, MSHA has assumed that mines with underground

employment will perform each of the examinations year-round.

For the purpose of this analysis, MSHA estimates that preshift and on-shift examinations would be conducted by a supervisory certified examiner (paid an hourly rate of \$84.69, including benefits); and that the supplemental and weekly examinations would be conducted by non-supervisory certified examiners (paid an hourly rate of \$36.92, including benefits). MSHA also estimates that—

- Mines with 1-19 employees operate one shift per day, 200 days per year;
- Mines with 20-500 employees operate two shifts per day, 300 days per year; and
- Mines with 501+ employees operate three shifts per day, 350 days per year.

Preshift Examination at Fixed Intervals - Final § 75.360

Final § 75.360 requires examiners conducting preshift examinations to identify violations of nine standards, in addition to examining for hazards, and record all violations found along with the corrective actions taken. MSHA estimates that it will take an examiner an additional 30 minutes (0.5 hr) per preshift examination to identify and record these violations and the corrective actions taken. Although the final rule narrows the scope of the

preshift examination, from requiring the examiner to identify violations of all standards to requiring the examiner to identify violations of nine standards, the time estimates for the proposal were based on violations of ten of the most frequently cited standards by MSHA inspectors. MSHA, therefore, is using the same estimate for additional examination time (0.5 hr) as used in the proposed rule.

MSHA estimates that the additional time required for the preshift examinations will result in costs of approximately \$11.3 million:

- \$1.5 million in mines with 1-19 employees (172 mines x 1 exam/day x 200 days/yr x 0.5 hr x \$84.69/hr);
- \$9.3 million in mines with 20-500 employees (366 mines x 2 exams/day x 300 days/yr x 0.5 hr x \$84.69/hr); and
- \$500,000 in mines with 501+ employees (15 mines x 3 exams/day x 350 days/yr x 0.5 hr x \$84.69/hr).

Supplemental Examination - Final § 75.361

Final § 75.361 requires examiners conducting supplemental examinations to identify violations of nine standards, in addition to identifying hazards. MSHA estimates that it will take an examiner an additional 15 minutes (0.25 hr) to identify and record these violations and the corrective actions taken. Supplemental examinations are only performed in areas where a preshift

examination has not been conducted. MSHA estimates that examiners would perform four supplemental examinations per year at mines with 1-19 employees and 24 supplemental examinations per year at mines with 20-500 employees and 501+ employees.

MSHA estimates that the additional time required for supplemental examinations will result in costs of approximately \$90,000:

- \$6,400 in mines with 1-19 employees (172 mines x 4 exams/mine x 0.25 hr/exam x \$36.92/hr);
- \$81,000 in mines with 20-500 employees (366 mines x 24 exams/mine x 0.25 hr/exam x \$36.92/hr); and
- \$2,400 in mines with 501+ employees (11 mines x 24 exams/mine x 0.25 hr/exam x \$36.92/hr).

On-shift Examination - Final § 75.362

Final § 75.362 requires examiners conducting on-shift examinations to identify violations of nine standards, in addition to identifying hazards. MSHA estimates that it would take an examiner an additional 15 minutes (0.25 hr) to identify and record these violations and the corrective actions taken. Because on-shift examinations are performed during each production shift, MSHA used the quarterly average of active mines reporting production (424) to estimate the costs below.

MSHA estimates that the additional time required for on-shift examinations will result in estimated costs of approximately \$4.8 million:

- \$343,000 in mines with 1-19 employees (81 mines x 1 shift/day x 200 days/yr x 0.25 hr/shift x \$84.69/hr);
- \$4.2 million in mines with 20-500 employees (331 mines x 2 shifts/day x 300 days/yr x 0.25 hr/shift x \$84.69/hr); and
- \$267,000 in mines with 501+ employees (12 mines x 3 shifts/day x 350 days/yr x 0.25 hr/shift x \$84.69/hr).

Hazardous Conditions and Violations of Health or Safety Standards; Posting, Correcting, Recording, and Reviewing - Final § 75.363(b) and (e)

Final § 75.363(b) requires examiners to record all violations noted and the corrective actions taken for supplemental and on-shift examinations (preshift and weekly examinations have separate recordkeeping requirements and are not covered by this provision). The costs associated with this final requirement are included in cost estimates for final §§ 75.361 and 75.362 above.

Final § 75.363(e) is a new provision that requires the operator to review with mine examiners, on a quarterly

basis, citations and orders issued in areas where preshift, supplemental, on-shift, and weekly examinations are required. MSHA estimates that 80 percent of underground coal mine operators currently discuss violations with examiners. Although some operators and examiners may meet less frequently and some more frequently, for costing purposes, MSHA assumes that these operators and examiners are meeting on a quarterly basis.

MSHA estimates that approximately 20 percent of mine operators do not currently discuss violations with examiners and would, therefore, incur new costs from this provision. MSHA estimates that 84 agents of the operators, 641 examiners for preshift and on-shift examinations, and 159 examiners for weekly and supplemental examinations would need to review the citations and orders as follows:

- 34 agents, 49 preshift and on-shift examiners, and 17 weekly and supplemental examiners in mines with 1-19 employees;
- 73 agents, 530 preshift and on-shift examiners, and 132 weekly and supplemental examiners in mines with 20-500 employees; and
- 2 agents, 62 preshift and on-shift examiners, and 10 weekly and supplemental examiners in mines with 501+ employees.

MSHA also estimates that these reviews would take 1 hour in mines with 1-19 employees, 2 hours in mines with 20-500 employees, and 4 hours in mines with 501+ employees.

Examiners on preshift and on-shift exams are supervisory certified examiners earning an hourly wage of \$84.69 and examiners on weekly and supplemental exams are non-supervisory certified examiners earning an hourly wage of \$36.92. MSHA estimates the operator's agent conducting the review earns an hourly wage of \$84.69.

MSHA estimates that these quarterly reviews will result in costs of approximately \$548,000 per year:

- \$31,000 in mines with 1-19 employees [(34 agents + 49 examiners) x \$84.69/hr x 4 mtg x 1 hr/mtg] + [17 examiners x \$36.92/hr x 4 mtg x 1 hr/mtg];
- \$448,000 in mines with 20-500 employees [(73 agents + 530 examiners) x \$84.69/hr x 4 mtg x 2 hr/mtg] + [132 examiners x \$36.92/hr x 4 mtg x 2 hr/mtg]; and
- \$69,000 in mines with 501+ employees [(2 agents + 62 examiners) x \$84.69/hr x 4 mtg x 4 hr/mtg] + [10 examiners x \$36.92/hr x 4 mtg x 4 hr/mtg].

Weekly Examination - Final § 75.364

Final § 75.364 requires operators to conduct examinations at least every 7 days to identify and record hazards and violations of nine health or safety standards.

MSHA estimates that it will take a certified examiner an additional 15 minutes (0.25 hr) to identify and record violations of standards and the corrective actions taken and that, on average, mines operate for 50 weeks per year.

The additional time required for weekly examinations for violations will result in costs of approximately \$253,000 per year:

- \$79,000 in mines with 1-19 employees (172 mines x 50 wk/yr x 0.25 hr/wk x \$36.92/hr);
- \$169,000 in mines with 20-500 employees (366 mines x 50 wk/yr x 0.25 hr/wk x \$36.92/hr); and
- \$5,000 in mines with 501+ employees (11 mines x 50 wk/yr x 0.25 hr/wk x \$36.92/hr).

Costs for Corrective Actions

MSHA's cost estimates for recording corrective actions for hazards or violations found during preshift, supplemental, on-shift, and weekly examinations do not include costs for any corrective actions taken to eliminate the hazardous condition or comply with the health or safety standard identified during the mine examination. These compliance costs were included in the cost estimates associated with the existing standards and are not new compliance costs resulting from this final rule. Rather than waiting for violations to be either identified by an

MSHA inspector or rise to the level of a hazardous condition and be identified by a mine examiner, the final rule requires mine operators to identify violations found during mine examinations.

MSHA estimates that the final rule could prevent some accidents because mine operators will be required to take corrective actions earlier than under the existing standards, *i.e.*, before a hazardous condition develops or before they are cited by MSHA inspectors. Although the final rule will result in operators taking corrective actions promptly, before the violation develops into a hazard, it will not increase the costs of the corrective actions. MSHA requires mine operators, if cited, to correct a violation of a health or safety standard, such as removing coal dust accumulations from conveyor belts or maintaining ventilation controls for their intended purpose, to abate the citation. The MSHA inspector determines the time for abating the violation. If the violation is a hazardous condition, MSHA requires it to be corrected immediately.

Impact on the Time Needed to Complete Examinations and Numbers of Examiners

A number of commenters were concerned that the final rule will force companies to hire additional personnel to

meet the requirements of the proposed examinations provisions. One commenter pointed out that, if examiners were compelled to walk both sides of conveyor belts, it would require twice the time or two examiners for preshift examinations. Another stated that the cost of the proposed requirements are more than the cost analysis in the proposed rule shows, and provided detailed estimates for all four mine examinations. This commenter estimated that it would take an additional half-hour for a preshift examination per working section, and at their mine with three working sections, they would need an additional preshift examiner per shift. The commenter added that the mine is new, and examination times for short travel distances and belt lengths will increase as the mine develops.

In response to commenters, MSHA has narrowed the scope of the final rule from the proposal to match what MSHA originally intended and what was originally assumed in the analysis in the proposed rule. The final rule requires examiners to look for hazardous conditions and violations of nine standards. Under the final rule, MSHA intends that the examiner focus on those violations that present the most unsafe conditions. It is important to remind operators that, however, if examiners observe other

violations, they remain obligated, as they are under the existing standards, to address these violations.

The existing rule requires that the preshift examination be conducted within 3 hours of the beginning of the oncoming shift, but most preshift examinations do not take the whole 3 hours. All the estimates of time, number of shifts, and working sections that MSHA uses in this cost section are the averages for all underground coal mines in a given size category and are not meant to be exact measurements for any individual mine.

As stated previously, MSHA does not intend that the final rule expand the examination to require additional tests or additional measurements, or to require examiners to open and examine equipment or boxes. MSHA expects the mine examiner to look for violations of these nine standards as they conduct their examinations and to complete the entire examination in the time allotted without the need for additional examiners.

Anthracite Coal Mines

In addition, several comments stated the need for a separate economic analysis of underground anthracite coal mines. One commenter indicated that the economic hardship on the anthracite underground mining community far exceeds the MSHA published figure of 0.43 percent of annual

revenues for small mines with 1-19 employees and 0.12 percent for mines with 20-500 employees. The commenter provided several calculations to show that the economic impact on underground anthracite coal mines would be 36.1 percent of annual revenues for anthracite mines with 1-19 employees and 43.7 percent of annual revenues for anthracite mines with 20-500 employees.

In response to these comments, MSHA reviewed the commenter's calculations and found that, while the calculations used only revenues from anthracite mines, the cost estimates included the cost to all mines instead of the cost to anthracite mines only. Thus, the percentages of costs relative to revenues are overstated.

MSHA conducted a separate and more detailed analysis of the economic impact of the final rule on underground anthracite coal mines. Table 4 below summarizes industry data for underground anthracite coal mines.

Table 4: Underground Anthracite Coal Mines, 2010 Quarterly Average as of January 2011, By Mine Size

Mine Size	Total # Mines	Total # Miners	Production (short tons)	Revenues (\$59.51/short ton)
1-19 Miners	8	52	39,724	\$2,363,975
20-500 Miners	1	36	98,930	\$5,887,324
Total	9	88	138,654	\$8,251,300

Because anthracite mines are generally smaller than most bituminous mines and most violations of the standards

in this final rule typically are not the types of conditions that are most cited found at underground anthracite underground mines, MSHA estimates that examination and recordkeeping times would be less for anthracite mines than the average used for all underground coal mines. After conducting this separate analysis with more accurate examination time estimates for anthracite mines, MSHA has determined that the cost of the final rule for anthracite mines will not exceed 1 percent of total anthracite coal mine revenues and will be economically feasible.

MSHA has included the results of the Agency's separate anthracite cost analysis for each provision in the final rule. Table 5 below presents the summary cost data for underground anthracite coal mines.

Table 5: Summary of Annual Costs to Underground Anthracite Coal Mine Operators

Requirement	Number of Employees		Totals
	1-19	20-500	
75.360 Preshift Exam	\$20,000	\$10,000	\$30,000
75.361 Supplemental Exam	\$50	\$40	\$90
75.362 On-Shift Exam	\$10,000	\$4,200	\$14,200
75.363(e) Review of Citations and Orders	\$1,000	\$1,000	\$2,000
75.364 Weekly Exam	\$1,000	\$100	\$1,100
Totals	\$32,050	\$15,340	\$47,390

Taking the total cost to underground anthracite coal mines of \$47,390 and dividing it by the total revenues in 2010 for underground anthracite coal mines of \$8,251,300 the economic impact of the final rule to underground anthracite coal mines is 0.57 percent of total revenues (\$47,390/\$8.25 million).

VI. Feasibility

MSHA has concluded that the requirements of the final rule are technologically and economically feasible. The existing regulations require mine operators to perform the examinations to identify hazardous conditions. The final rule expands the existing standards to require the mine examiner to identify violations of specific health or safety standards listed in the final rule.

A. Technological Feasibility

MSHA concludes that the final rule is technologically feasible because it simply requires operators to identify, record, and correct violations of health or safety standards. There are no technology issues raised by the final rule.

B. Economic Feasibility

MSHA concludes that the final rule is economically feasible. The U.S. underground coal mining sector produced an estimated 337 million short tons of coal in 2010.

Multiplying the production by the 2010 price of underground coal of \$60.73 per short ton yields estimated 2010 underground coal revenues of approximately \$20.5 billion. MSHA estimated the yearly compliance cost of the final rule to be \$17.0 million, which is 0.08 percent of revenues (\$17.0 million/\$20.5 billion) for underground coal mines. MSHA has traditionally used a revenue screening test - whether the yearly compliance costs of a regulation are less than 1 percent of revenues - to establish presumptively that compliance with the regulation is economically feasible for the mining community.

VII. Regulatory Flexibility Act and Small Business

Regulatory Enforcement Fairness Act

Pursuant to the Regulatory Flexibility Act (RFA) of 1980, as amended by the Small Business Regulatory Enforcement Fairness Act (SBREFA), MSHA has analyzed the impact of the final rule on small businesses. Based on its analysis, MSHA notified the Chief Counsel for Advocacy, Small Business Administration, and made the certification under the Regulatory Flexibility Act at 5 U.S.C. 605(b) that the final rule will not have a significant economic impact on a substantial number of small entities. The factual basis for this certification is presented below.

A. Definition of a Small Mine

Under the RFA, in analyzing the impact of the final rule on small entities, MSHA must use the Small Business Administration (SBA) definition for a small entity or, after consultation with the SBA Office of Advocacy, establish an alternative definition for the mining industry by publishing that definition in the *Federal Register* for notice and comment. MSHA has not taken such an action and must use the SBA definition. The SBA defines a small entity in the mining industry as an establishment with 500 or fewer employees.

In addition to examining small entities as defined by SBA, MSHA has also looked at the impact of this final rule on underground coal mines with fewer than 20 employees, which MSHA and the mining community have traditionally referred to as "small mines." These small mines differ from larger mines not only in the number of employees, but also in economies of scale in material produced, in the type and amount of production equipment, and in supply inventory. Therefore, the cost of complying with the final rule and the impact of the final rule on small mines will also be different. It is for this reason that small mines are of special concern to MSHA.

B. Factual Basis for Certification

MSHA initially evaluates the impact on "small entities" by comparing the estimated compliance costs of a rule for small entities in the sector affected by the rule to the estimated revenues for the affected sector. When estimated compliance costs do not exceed 1 percent of the estimated revenues, the Agency believes it is generally appropriate to conclude that there is no significant economic impact on a substantial number of small entities. When estimated compliance costs exceed one percent of revenues, MSHA investigates whether a further analysis is required.

For underground coal mines, the estimated preliminary 2010 production was approximately 3.7 million tons for mines that had fewer than 20 employees and 251 million tons for mines that had 500 or fewer employees. Using the 2010 price of underground coal of \$60.73 per short ton and total 2010 coal production in short tons, underground coal revenues are estimated to be approximately \$224 million for mines employing fewer than 20 employees and \$15.0 billion for mines employing 500 or fewer employees. The annual costs of the final rule for mines that have fewer than 20 employees is 0.86 percent (\$1.9 million/\$224 million) of annual revenues, and the annual costs of the final rule for

mines that have 500 or fewer employees is 0.10 percent (\$16.1 million/\$15.2 billion) of annual revenues.

Using either MSHA's traditional definition of a small mine (one having fewer than 20 employees) or SBA's definition of a small mine (one having 500 or fewer employees), the yearly costs for underground coal mines to comply with the final rule will not exceed 1 percent of their estimated revenues. Accordingly, MSHA certifies that the final rule will not have a significant economic impact on a substantial number of small entities.

VIII. Paperwork Reduction Act of 1995

A. Summary

This final rule contains changes that affect the burden in an existing paperwork package with OMB Control Number 1219-0088. The final rule also contains a new burden for information collection requirements, which is shown in Table 6. MSHA estimates that the final rule will result in approximately 15,478 burden hours with an associated cost of approximately \$1.2 million annually. The change in the number of mines increased the burden hours and cost. However, the net effect per mine is a decrease from the proposed rule.

Table 6: Summary of Burden Hours and Costs

Requirement	Burden Hours	Cost
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75.360 Pre-Shift exam	13,278	\$1,124,514
75.363 Record of Hazards	827	\$62,157
75.364 Weekly exam	1,373	\$50,673
Totals	15,478	\$1,237,344

Many of the commenters were concerned that under the proposal, recordkeeping requirements would increase dramatically. One stated that the recordkeeping will require additional personnel on each shift, 7 days per week and, thus, add four people at an annual cost of \$400,000 per mine with wages and benefits. MSHA estimated additional time for identifying, correcting, and recording violations of nine standards found during preshift, supplemental, on-shift, and weekly mine examinations. Out of the additional time for examining for violations, MSHA estimates that an average of 3 minutes (0.05 hr) will be for recording the violations found and the corrective actions taken. MSHA has determined that requiring examiners to look for violations of nine standards during required examinations and recording the violations found and corrective actions taken, will increase the burden on operators, but will not require additional examiners.

Final § 75.360 - Burden to Make a Record of the Preshift Examination

Final § 75.360 requires operators to record hazardous conditions and violations of standards found during the

preshift examination and the corrective actions taken.

MSHA estimates that it would take an examiner an average of 3 minutes (0.05 hr) out of the total additional time needed to perform the preshift examination to record the violations and any corrective actions taken. An examiner conducting a preshift examination earns a supervisory wage of \$84.69 an hour (includes benefits). MSHA estimates that—

- Mines with 1-19 employees operate one shift per day, 200 days per year;
- Mines with 20-500 employees operate two shifts per day, 300 days per year; and
- Mines with 501+ employees operate three shifts per day, 350 days per year.

MSHA's estimates of underground coal operators' annual burden hours and burden hour costs for preshift examinations are presented below.

Burden Hours

- 172 mines x 1 shift x 200 days x 0.05 hr.....= 1,720 hr
- 366 mines x 2 shifts x 300 days x 0.05 hr...= 10,980 hr
- 11 mines x 3 shifts x 350 days x 0.05 hr.....= 578 hr
- Total Hours= 13,278 hr

Burden Hour Costs

- 13,278 hr x \$84.69/hr.....= \$1,124,514

There are no other associated costs because the final rule adds to an existing system of recordkeeping.

Final § 75.363 - Burden to Make a Record of Violations

Found

Final § 75.363 requires operators to record any violations of mandatory health or safety standards found on supplemental and on-shift examinations and any corrective actions taken. The final preshift (§ 75.360) and weekly (§ 75.364) examinations have their own recordkeeping requirements. The final supplemental (§ 75.361) and on-shift (§ 75.362) standards contain new recordkeeping requirements if a violation of a mandatory health or safety standard is found. The recordkeeping for these final standards would be recorded under final § 75.363.

During FY 2005 through 2009, MSHA inspectors found an annual average of 22,062 violations of the 9 top cited standards MSHA believes are most likely to be identified on preshift, supplemental, on-shift, and weekly examinations (see Section IV). Because conditions resulting in these violations can occur and require corrective action multiple times during the year (e.g., insufficient rock dust), MSHA multiplied the 22,062 violations found by MSHA inspectors by a factor of 1.5 to arrive at an estimated 33,093 violations that could be found by mine examiners. MSHA

assumes that half of these violations, 16,547 violations, would be identified on the preshift and weekly examinations and the other half would be identified on supplemental and on-shift examinations.

MSHA estimates that 80 percent of these violations ($13,237 = 0.80 \times 16,547$) would be found on the on-shift examinations and 20 percent of these violations ($3,309 = 0.20 \times 16,547$) would be found on the supplemental examinations. MSHA estimates that it would take 3 minutes (0.05 hrs.) to record any violations identified and the corrective actions taken. Supervisors earning \$84.69 an hour perform on-shift exams and certified examiners earning \$36.92 perform supplemental exams.

MSHA's estimates of underground coal operators' annual burden hours and related costs are presented below.

Burden Hours

- 13,239 violations x 0.05 hrs. = 662 hrs.
- 3,310 violations x 0.05 hrs. = 165 hrs.
- Total Hours = 827 hrs.

Burden Costs

- 662 hrs. x \$84.69 wage rate = \$56,065
- 165 hrs. x \$36.92 wage rate = \$6,092
- Total burden cost = \$62,157

Final § 75.364 - Burden to Make a Record of the Weekly Examinations

Final § 75.364 requires operators to conduct examinations every 7 days and record hazardous conditions and violations of standards found and corrective actions taken. MSHA estimates that it will take a certified examiner approximately 3 minutes (0.05 hr) out of the total time needed to conduct the examination to record the violations found and corrective actions taken. An examiner conducting these weekly examinations earns a non-supervisory wage of \$36.92 an hour (includes benefits). MSHA also estimates that, on average, mines operate for 50 weeks per year.

MSHA's estimates of underground coal operators' annual burden hours and related costs for weekly examinations are presented below.

Burden Hours

- 549 mines x 50 weeks x 0.05 hr.....= 1,373 hr

Burden Hour Costs

- 1,373 hr x \$36.92/hr.....= \$50,673

There are no other associated costs because the final rule adds to an existing system of recordkeeping.

B. Procedural Details

The information collection package for this final rule was submitted to OMB for review under 44 U.S.C. sec. 3504, paragraph (h) of the Paperwork Reduction Act of 1995, as amended. MSHA requested comment on its estimates for information collection requirements in the proposal and responded to these comments in the final rule. A Federal agency generally cannot conduct or sponsor a collection of information, and the public is generally not required to respond to an information collection, unless it is approved by the OMB under the PRA and displays a currently valid OMB Control Number. In addition, notwithstanding any other provisions of law, no person shall generally be subject to penalty for failing to comply with a collection of information if the collection of information does not display a valid OMB Control Number. See 5 CFR 1320.5(a) and 1320.6.

The Department will, concurrent with publication of this rule, submit the information collections contained in this final rule for review under the PRA to the OMB, as part of a revision to Control Number 1219-0088. The Department will publish an additional Notice to announce OMB's action on the request and when the information collection requirements will take effect. The regulated community is not required to respond to any collection of

information unless it displays a current, valid, OMB control number. MSHA displays the OMB control numbers for the information collection requirements in its regulations in 30 CFR part 3.

IX. Other Regulatory Considerations

A. The Unfunded Mandates Reform Act of 1995

MSHA has reviewed the final rule under the Unfunded Mandates Reform Act of 1995 (2 U.S.C. 1501 *et seq.*). MSHA has determined that this final rule does not include any federal mandate that may result in increased expenditures by State, local, or tribal governments; nor will it increase private sector expenditures by more than \$100 million in any one year or significantly or uniquely affect small governments. Accordingly, the Unfunded Mandates Reform Act of 1995 (2 U.S.C. 1501 *et seq.*) requires no further agency action or analysis.

B. Executive Order 13132: Federalism

This final rule does not have "federalism implications" because it will not "have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government." Accordingly, under E.O. 13132, no further Agency action or analysis is required.

One commenter stated that they disagreed with MSHA's finding regarding E.O. 13132, that the proposed rule would not have 'federalism implications' or a 'substantial direct effect' on states. The commenter said that the rule would have real implications for states, with potentially substantial costs associated with training and certification. Historically, MSHA accepted state certifications for mine examiners. The final rule addresses hazardous conditions required under the existing rule and violations of health or safety standards. Since violations of the nine standards generally relate to hazardous conditions covered by the existing rule, MSHA believes that the final rule will have only a minimal effect on states. It is currently the responsibility of the mine operator to correct any violation of a health or safety standard. Based on Agency experience, MSHA does not anticipate that requiring examiners on preshift, supplemental, on-shift, and weekly examinations to look for and identify violations of the nine standards in the final rule will affect training and certification done by the states.

C. The Treasury and General Government Appropriations Act of 1999: Assessment of Federal Regulations and Policies on Families

Section 654 of the Treasury and General Government Appropriations Act of 1999 (5 U.S.C. 601 note) requires agencies to assess the impact of Agency action on family well-being. MSHA has determined that this final rule will have no effect on family stability or safety, marital commitment, parental rights and authority, or income or poverty of families and children. This final rule impacts only the underground coal mine industry. Accordingly, MSHA certifies that this final rule would not impact family well-being.

D. Executive Order 12630: Government Actions and Interference with Constitutionally Protected Property Rights

This final rule does not implement a policy with takings implications. Accordingly, under E.O. 12630, no further Agency action or analysis is required.

E. Executive Order 12988: Civil Justice Reform

This final rule was written to provide a clear legal standard for affected conduct and was carefully reviewed to eliminate drafting errors and ambiguities, so as to minimize litigation and undue burden on the Federal court

system. Accordingly, this final rule will meet the applicable standards provided in section 3 of E.O. 12988, Civil Justice Reform.

F. Executive Order 13045: Protection of Children from Environmental Health Risks and Safety Risks

This final rule will have no adverse impact on children. Accordingly, under E.O. 13045, no further Agency action or analysis is required.

G. Executive Order 13175: Consultation and Coordination with Indian Tribal Governments

This final rule does not have "tribal implications" because it will not "have substantial direct effects on one or more Indian tribes, on the relationship between the Federal government and Indian tribes, or on the distribution of power and responsibilities between the Federal government and Indian tribes." Accordingly, under E.O. 13175, no further Agency action or analysis is required.

H. Executive Order 13211: Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use

Executive Order 13211 requires agencies to publish a statement of energy effects when a rule has a significant energy action that adversely affects energy supply,

distribution or use. MSHA has reviewed this final rule for its energy effects because the final rule applies to the underground coal mining sector. Because this final rule will result in yearly costs of approximately \$17.0 million to the underground coal mining industry, relative to annual revenues of \$18.8 billion in 2010, MSHA has concluded that it is not a significant energy action because it is not likely to have a significant adverse effect on the supply, distribution, or use of energy. Accordingly, under this analysis, no further Agency action or analysis is required.

I. Executive Order 13272: Proper Consideration of Small Entities in Agency Rulemaking

MSHA has reviewed the final rule to assess and take appropriate account of its potential impact on small businesses, small governmental jurisdictions, and small organizations. MSHA has determined and certified that the final rule does not have a significant economic impact on a substantial number of small entities.

X. References

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List of Subjects in 30 CFR Part 75

Mine safety and health, Underground coal mines, Ventilation.

Joseph A. Main
Assistant Secretary for
Mine Safety and Health

April 3, 2012
Dated

For the reasons set out in the preamble, and under the authority of the Federal Mine Safety and Health Act of 1977 as amended, chapter I of title 30, part 75 of the Code of Federal Regulations is amended as follows:

PART 75—MANDATORY SAFETY STANDARDS—UNDERGROUND COAL MINES

1. The authority citation for part 75 subpart D is added to read as follows:

AUTHORITY: 30 U.S.C. 811, 863.

Subpart D—Ventilation

2. Section 75.360 is amended by revising paragraphs (a)(2), (b) introductory text, (e), and (g), and adding new paragraph (b)(11) to read as follows:

§ 75.360 Preshift examination at fixed intervals.

(a) * * *

(2) Preshift examinations of areas where pumpers are scheduled to work or travel shall not be required prior to the pumper entering the areas if the pumper is a certified person and the pumper conducts an examination for hazardous conditions and violations of the mandatory health or safety standards referenced in paragraph (b)(11) of this section, tests for methane and oxygen deficiency, and determines if the air is moving in its proper direction in the area where the pumper works or travels. The examination of the area must be completed before the pumper performs any other work. A record of all hazardous conditions and violations of the mandatory health or safety standards found by the pumper shall be made and retained in accordance with § 75.363 of this part.

(b) The person conducting the preshift examination shall examine for hazardous conditions and violations of the mandatory health or safety standards referenced in paragraph (b)(11) of this section, test for methane and

oxygen deficiency, and determine if the air is moving in its proper direction at the following locations:

* * * * *

(11) Preshift examinations shall include examinations to identify violations of the standards listed below:

(i) §§ 75.202(a) and 75.220(a)(1) - roof control;

(ii) §§ 75.333(h) and 75.370(a)(1) - ventilation, methane;

(iii) §§ 75.400 and 75.403 - accumulations of combustible materials and application of rock dust;

(iv) § 75.1403 - other safeguards, limited to maintenance of travelways along belt conveyors, off track haulage roadways, and track haulage, track switches, and other components for haulage;

(v) § 75.1722(a) - guarding moving machine parts; and

(vi) § 75.1731(a) - maintenance of belt conveyor components.

* * * * *

(e) The district manager may require the operator to examine other areas of the mine or examine for other hazards and violations of other mandatory health or safety standards found during the preshift examination.

* * * * *

(g) Recordkeeping. A record of the results of each preshift examination, including a record of hazardous conditions and violations of the nine mandatory health or safety standards and their locations found by the examiner during each examination, and of the results and locations of air and methane measurements, shall be made on the surface before any persons, other than certified persons conducting examinations required by this subpart, enter any underground area of the mine. The results of methane tests shall be recorded as the percentage of methane measured by the examiner. The record shall be made by the certified person who made the examination or by a person designated by the operator. If the record is made by someone other than the examiner, the examiner shall verify the record by initials and date by or at the end of the shift for which the examination was made. A record shall also be made by a certified person of the action taken to correct hazardous conditions and violations of mandatory health or safety standards found during the preshift examination. All preshift and corrective action records shall be countersigned by the mine foreman or equivalent mine official by the end of the mine foreman's or equivalent mine official's next regularly scheduled working shift. The records required by this section shall be made in a

secure book that is not susceptible to alteration or electronically in a computer system so as to be secure and not susceptible to alteration.

* * * * *

3. Section 75.361 is amended by revising paragraph (a) to read as follows:

§ 75.361 Supplemental examination.

(a)(1) Except for certified persons conducting examinations required by this subpart, within 3 hours before anyone enters an area in which a preshift examination has not been made for that shift, a certified person shall examine the area for hazardous conditions and violations of the mandatory health or safety standards referenced in paragraph (a)(2) of this section, determine whether the air is traveling in its proper direction and at its normal volume, and test for methane and oxygen deficiency.

(2) Supplemental examinations shall include examinations to identify violations of the standards listed below:

(i) §§ 75.202(a) and 75.220(a)(1) - roof control;

(ii) §§ 75.333(h) and 75.370(a)(1) - ventilation, methane;

(iii) §§ 75.400 and 75.403 - accumulations of combustible materials and application of rock dust;

(iv) § 75.1403 - other safeguards, limited to maintenance of travelways along belt conveyors, off track haulage roadways, and track haulage, track switches, and other components for haulage;

(v) § 75.1722(a) - guarding moving machine parts; and

(vi) § 75.1731(a) - maintenance of belt conveyor components.

* * * * *

4. Section 75.362 is amended by revising paragraphs (a)(1) and (b), and adding new paragraph (a)(3) to read as follows:

§ 75.362 On-shift examination.

(a)(1) At least once during each shift, or more often if necessary for safety, a certified person designated by the operator shall conduct an on-shift examination of each section where anyone is assigned to work during the shift and any area where mechanized mining equipment is being installed or removed during the shift. The certified person shall check for hazardous conditions and violations of the mandatory health or safety standards referenced in paragraph (a)(3) of this section, test for methane and

oxygen deficiency, and determine if the air is moving in its proper direction.

* * * * *

(3) On-shift examinations shall include examinations to identify violations of the standards listed below:

(i) §§ 75.202(a) and 75.220(a)(1) - roof control;

(ii) §§ 75.333(h) and 75.370(a)(1) - ventilation, methane;

(iii) §§ 75.400 and 75.403 - accumulations of combustible materials and application of rock dust;

(iv) § 75.1403 - other safeguards, limited to maintenance of travelways along belt conveyors, off track haulage roadways, and track haulage, track switches, and other components for haulage;

(v) § 75.1722(a) - guarding moving machine parts; and

(vi) § 75.1731(a) - maintenance of belt conveyor components.

(b) During each shift that coal is produced, a certified person shall examine for hazardous conditions and violations of the mandatory health or safety standards referenced in paragraph (a)(3) of this section along each belt conveyor haulageway where a belt conveyor is operated. This examination may be conducted at the same time as the

preshift examination of belt conveyors and belt conveyor haulageways, if the examination is conducted within 3 hours before the oncoming shift.

* * * * *

5. Section 75.363 is amended by adding new paragraph (e) and revising the section heading and paragraphs (a) and (b) to read as follows:

§ 75.363 Hazardous conditions and violations of mandatory health or safety standards; posting, correcting, and recording.

(a) Any hazardous condition found by the mine foreman or equivalent mine official, assistant mine foreman or equivalent mine official, or other certified persons designated by the operator for the purposes of conducting examinations under this subpart D, shall be posted with a conspicuous danger sign where anyone entering the areas would pass. A hazardous condition shall be corrected immediately or the area shall remain posted until the hazardous condition is corrected. If the condition creates an imminent danger, everyone except those persons referred to in section 104(c) of the Act shall be withdrawn from the area affected to a safe area until the hazardous condition is corrected. Only persons designated by the operator to correct or evaluate the hazardous condition may enter the

posted area. Any violation of a mandatory health or safety standard found during a preshift, supplemental, on-shift, or weekly examination shall be corrected.

(b) A record shall be made of any hazardous condition and any violation of the nine mandatory health or safety standards found by the mine examiner. This record shall be kept in a book maintained for this purpose on the surface at the mine. The record shall be made by the completion of the shift on which the hazardous condition or violation of the nine mandatory health or safety standards is found and shall include the nature and location of the hazardous condition or violation and the corrective action taken. This record shall not be required for shifts when no hazardous conditions or violations of the nine mandatory health or safety standards are found.

* * * * *

(e) Review of citations and orders. The mine operator shall review with mine examiners on a quarterly basis citations and orders issued in areas where preshift, supplemental, on-shift, and weekly examinations are required.

6. Section 75.364 is amended by revising the introductory text of paragraph (b) and paragraphs (d) and (h), and adding new paragraph (b)(8) to read as follows:

§ 75.364 Weekly examination.

* * * * *

(b) Hazardous conditions and violations of mandatory health or safety standards. At least every 7 days, an examination for hazardous conditions and violations of the mandatory health or safety standards referenced in paragraph (b)(8) of this section shall be made by a certified person designated by the operator at the following locations:

* * * * *

(8) Weekly examinations shall include examinations to identify violations of the standards listed below:

(i) §§ 75.202(a) and 75.220(a)(1) - roof control;

(ii) §§ 75.333(h) and 75.370(a)(1) - ventilation, methane;

(iii) §§ 75.400 and 75.403 - accumulations of combustible materials and application of rock dust; and

(iv) § 75.1403 - maintenance of off track haulage roadways, and track haulage, track switches, and other components for haulage;

(v) § 75.1722(a) - guarding moving machine parts; and

(vi) § 75.1731(a) - maintenance of belt conveyor components.

* * * * *

(d) Hazardous conditions shall be corrected immediately. If the condition creates an imminent danger, everyone except those persons referred to in section 104(c) of the Act shall be withdrawn from the area affected to a safe area until the hazardous condition is corrected. Any violation of the nine mandatory health or safety standards found during a weekly examination shall be corrected.

* * * * *

(h) Recordkeeping. At the completion of any shift during which a portion of a weekly examination is conducted, a record of the results of each weekly examination, including a record of hazardous conditions and violations of the nine mandatory health or safety standards found during each examination and their locations, the corrective action taken, and the results and location of air and methane measurements, shall be made. The results of methane tests shall be recorded as the percentage of methane measured by the examiner. The record shall be made by the person making the examination or a person designated by the operator. If made by a person other than the examiner, the examiner shall verify the record by initials and date by or at the end of the shift for which the examination was made. The record shall be countersigned by

the mine foreman or equivalent mine official by the end of the mine foreman's or equivalent mine official's next regularly scheduled working shift. The records required by this section shall be made in a secure book that is not susceptible to alteration or electronically in a computer system so as to be secure and not susceptible to alteration.

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[FR Doc. 2012-8328 Filed 04/04/2012 at 11:15 am;
Publication Date: 04/06/2012]